

## Trend Analysis Report

---

### Purpose:

This Trend Analysis Report helps sites with multiple years of weighted YRBS high school data determine if behaviors have increased, decreased, or stayed the same over time.

### Criteria:

A Trend Analysis Report is generated for sites that have weighted YRBS high school data in 2003 and in at least one other survey year since 1991.

Only standard questions from the 2003 High School YRBS questionnaire and variables calculated from those questions are eligible for inclusion in the report. Site added questions are not included. For a standard question to be included in the report the site must have asked the question in 2003. If the site asked the question in 2003 but not in all previous years, only 2003 data and data from survey years immediately preceding 2003 are included for that question. For example, if a site has weighted data from 2003, 2001, 1999, and 1997 but asked a particular question only in 2003, 2001, and 1997, only the data from 2003 and 2001 (for that question) are included in the analysis. The “break” in asking the question in 1999 causes data from years previous to the break to be excluded from the analysis.

To construct the Trend Analysis Report, we used logistic regression analysis to test for change over time. When we test for change over time, we controlled for changes in distributions by sex, race/ethnicity, and grade. Logistic regression analysis uses **all** available years of data. It does not consider just the oldest and the most recent data points. Logistic regression analysis provides an accurate test of change over long periods of time. Both linear and quadratic changes were tested for simultaneously in the model.

### Trend Analysis Report Column Headings:

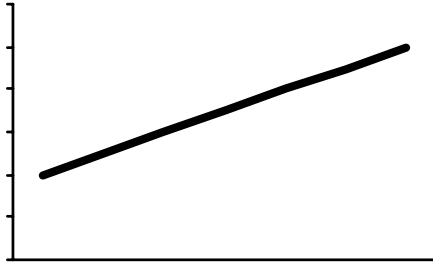
- **Question** – Every 2003 standard and calculated YRBS question asked by a site is included in this column. The text reflects the response or responses of interest for the particular question.
- **Prevalence** – These columns provide the prevalence estimate for each variable for each year included in the report. You may use the data in these columns to graph the trend lines of interest to you. A blank for a given question or year signifies that weighted data were not available for that year, that the question was not asked, or that there were less than 100 respondents. You may use the data in these columns to graph the trend lines of interest to you.
- **Changes Over Time** – These columns indicate whether there was a significant linear and/or quadratic change over time.

## Trend Analysis Report

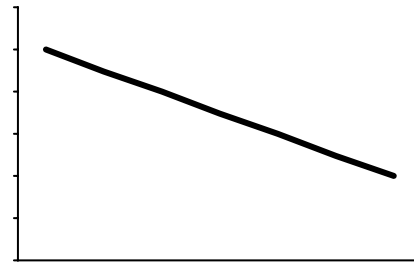
Results may be interpreted as follows:

**Linear change = YES; Quadratic change = NO**

This means the behavior either increased (A) or decreased (B) significantly over time. If you graph the trend line it will be relatively straight.



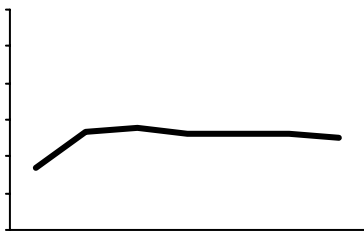
A



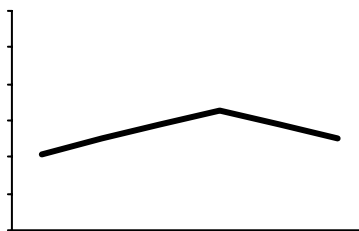
B

**Linear change = NO; Quadratic change = YES**

This means the behavior increased or decreased slightly over time, but not enough to be a significant linear change, and then leveled off (C); the behavior increased or decreased and then went in the opposite direction (D); or the behavior started out level and then increased or decreased over time, but not enough to be a significant linear change (E). If you graph the trend line, it will have a bend in it. You need at least three years of data to detect a quadratic change.



C



D



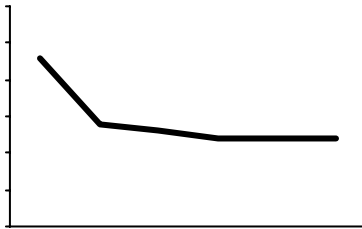
E

## Trend Analysis Report

---

### Linear change = YES; Quadratic change = YES

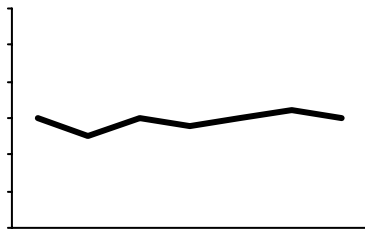
This means that while there was an overall significant increase or decrease in the behavior over time, the behavior has either leveled off or begun to move in the opposite direction (F). If you graph the trend line, it will have a bend in it.



**F**

### Linear change = NO; Quadratic change = NO

This means that there was no significant change in the behavior over time. If you graph the trend line it will be relatively flat (G).



**G**